|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chips Ahoy!!! - # of Chips per Cookie** | | | | | |
|  |  |  |  |  |  |
|  | **Cookie #1** | **Cookie #2** | **Cookie #3** | **Mean (ave) by Person** | **Standard Deviation** |
| Tay | 22 | 29 | 23 | **24.7** | 3.8 |
| Brit A | 10 | 22 | 19 | **17.0** | 6.2 |
| Norma | 23 | 19 | 24 | **22.0** | 2.6 |
| Brit M | 23 | 26 | 25 | **24.7** | 1.5 |
| Syd T | 12 | 17 | 15 | **14.7** | 2.5 |
| BF | 16 | 24 | 24 | **21.3** | 4.6 |
| NN | 23 | 22 | 23 | **22.7** | 0.6 |
| Zander | 16 | 25 | 21 | **20.7** | 4.5 |
| Gene | 18 | 19 | 19 | **18.7** | 0.6 |
| **Mean (ave) by Cookie** | **18.1** | **22.6** | **21.4** |  |  |
| **Standard Deviation** | 5.0 | 3.8 | 3.2 |  |  |

What are some reasons for the variation in the number of chips per cookie?

What evidence can you find that in the data that might suggest that some evaluators counted differently?

How much variation in chips would be acceptable to YOU??? What would be TOO few? Would/could there be TOO many chips in a cookie for YOU?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Chocolate Chip data sorted** | | |  |  | **Bold - 5 # Summary** | |
|  |  |  |  |  |  |  |
| **#** | **# chips** |  |  |  | **IQR - Interquartile Range** | |
| 1 | 10 | **Minimum** |  |  |  |  |
| 2 | 12 |  |  |  | **+/- 1.5 X IQR - outliers** | |
| 3 | 15 |  |  |  |  |  |
| 4 | 16 |  |  |  |  |  |
| 5 | 16 |  |  |  | **Min** | 10 |
| 6 | 17 |  |  |  | **Max** | 29 |
| 7 | 18 | **1st Q - 25th %ile** |  |  | **Median** | 22 |
| 8 | 19 |  |  |  | **1st Q** | 18 |
| 9 | 19 |  |  |  | **3rd Q** | 24 |
| 10 | 19 |  |  |  | IQR | 6 |
| 11 | 19 |  |  |  | 1.5 X IQR | 9 |
| 12 | 21 |  |  |  | 1st Q - 9 | 9 |
| 13 | 22 |  |  |  | 3rd Q + 9 | 31 |
| 14 | 22 | **Median - 50th %ile** |  |  | **Mean** | **20.7** |
| 15 | 22 |  |  |  |  |  |
| 16 | 23 |  |  |  | No outliers in this sample | |
| 17 | 23 |  |  |  |  |  |
| 18 | 23 |  |  |  |  |  |
| 19 | 23 |  |  |  |  |  |
| 20 | 23 |  |  |  |  |  |
| 21 | 24 | **3rd Q - 75th %ile** |  |  |  |  |
| 22 | 24 |  |  |  |  |  |
| 23 | 24 |  |  |  |  |  |
| 24 | 25 |  |  |  |  |  |
| 25 | 25 |  |  |  |  |  |
| 26 | 26 |  |  |  |  |  |
| 27 | 29 | **Maximum** |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | **18** | 19 | 20 | 21 | **22** | 23 | **24** | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | l |  |  |  |  |  |  |  |  |  |  |